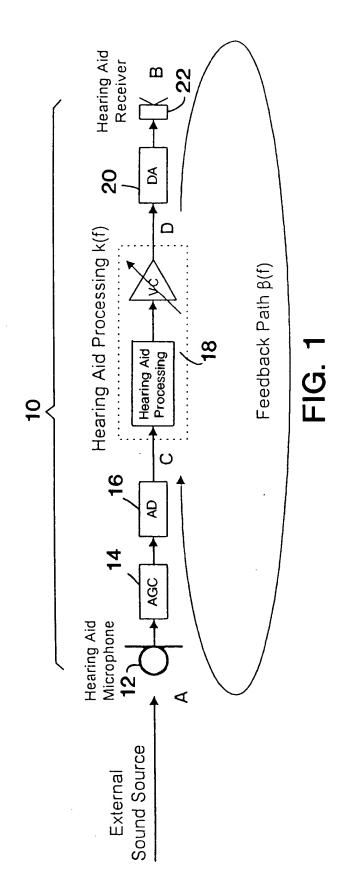
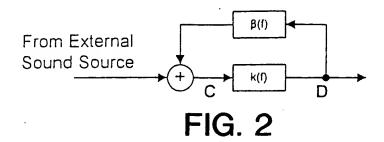
Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163 Docket No.: 37422P006
Sheet: 1 of 20

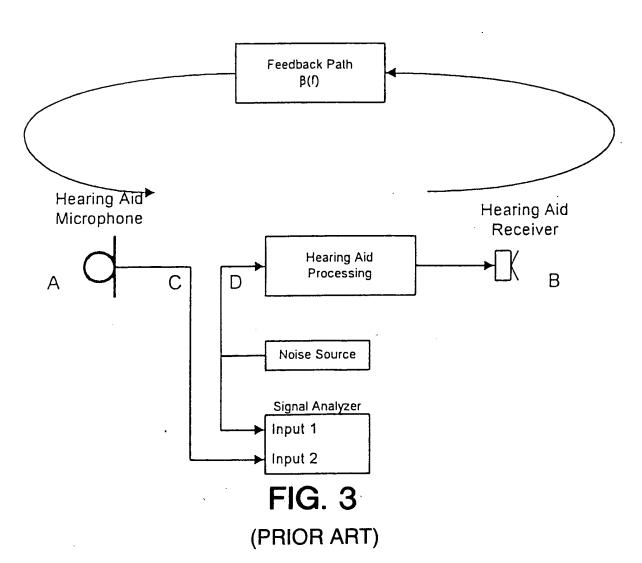


Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR

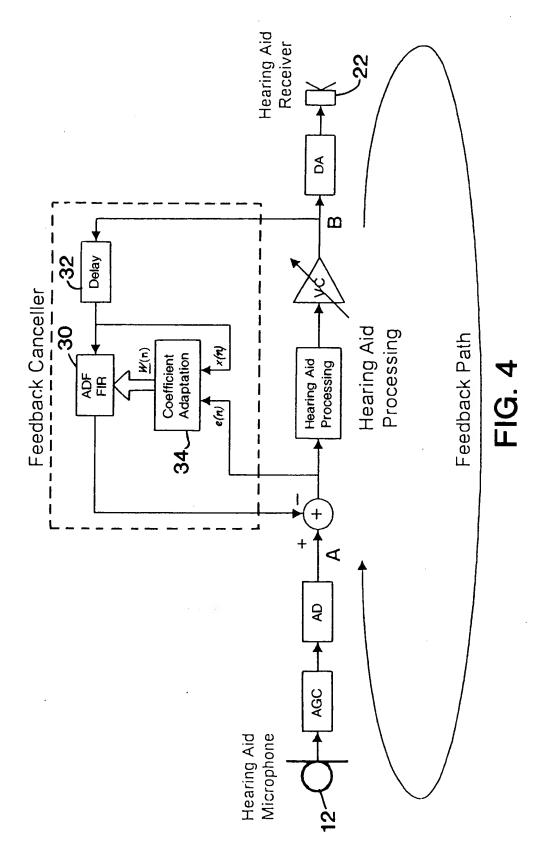
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163

Sheet: 2 of 20



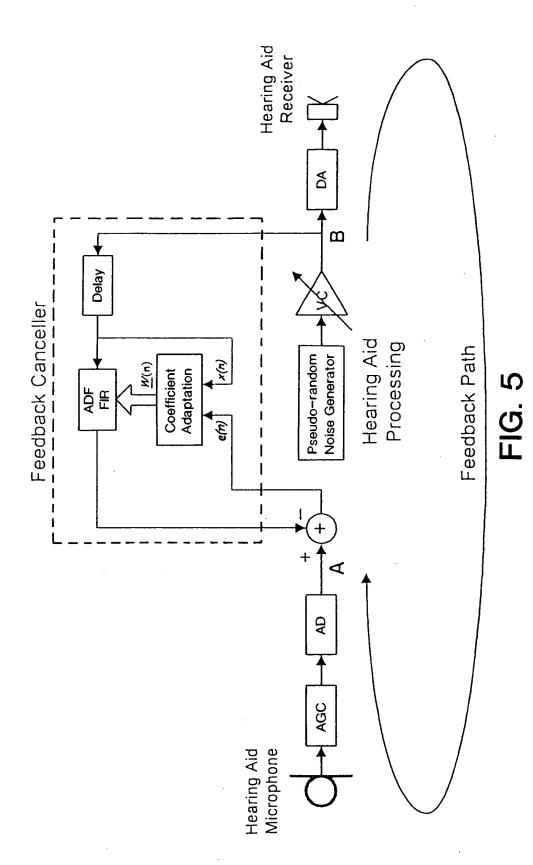


,Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163 Docket No.: 37422P006
Sheet: 3 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163 Docket No.: 37422P006

Sheet: 4 of 20

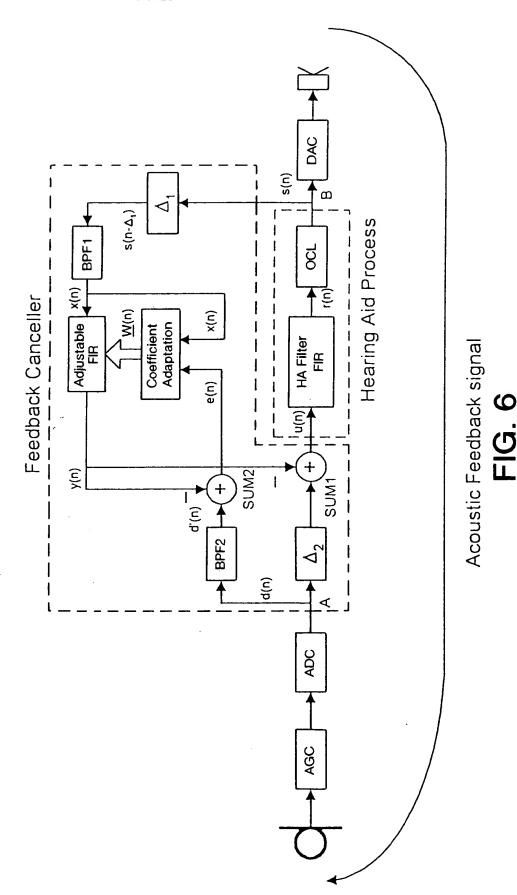




Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR HEARING AIDS

1st Named Inventor: Shawn X. Gao

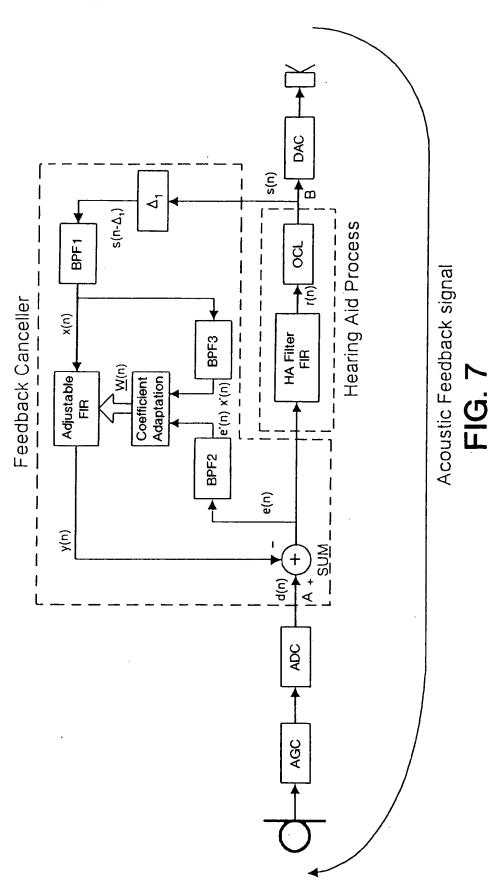
Application No.: 09/409,163 Sheet: 5 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao

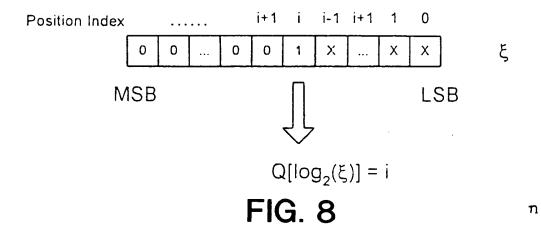
Application No.: 09/409,163

Sheet: 6 of 20

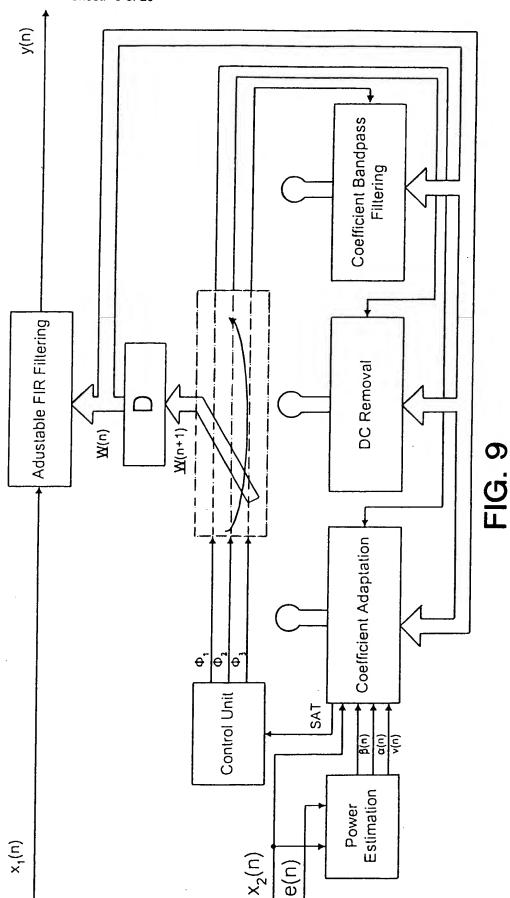


Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR HEARING AIDS

1st Named Inventor: Shawn X. Gao Application No.: 09/409,163 Sheet: 7 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163 Docket No.: 37422P006
Sheet: 8 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR

HEARING AIDS

1st Named Inventor: Shawn X. Gao

Application No.: 09/409,163

Sheet: 9 of 20

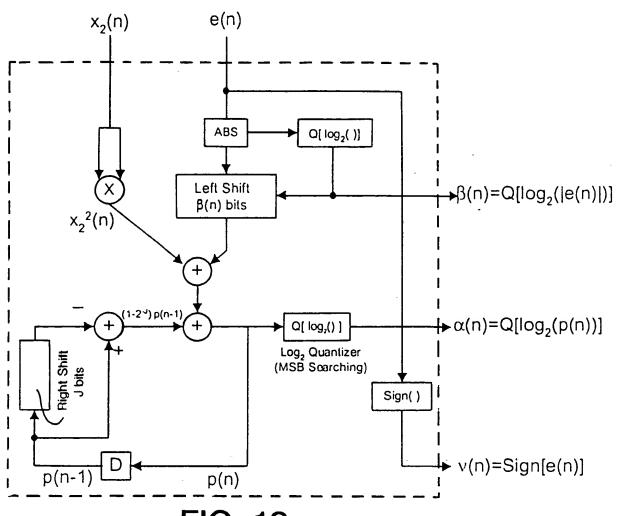
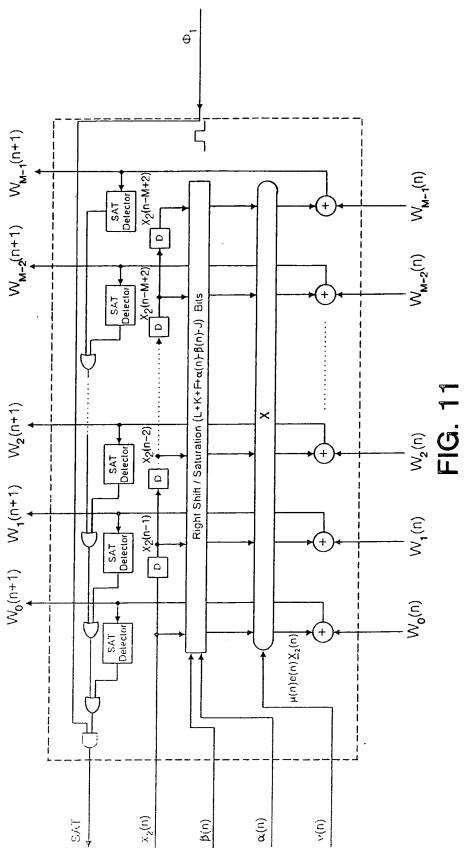
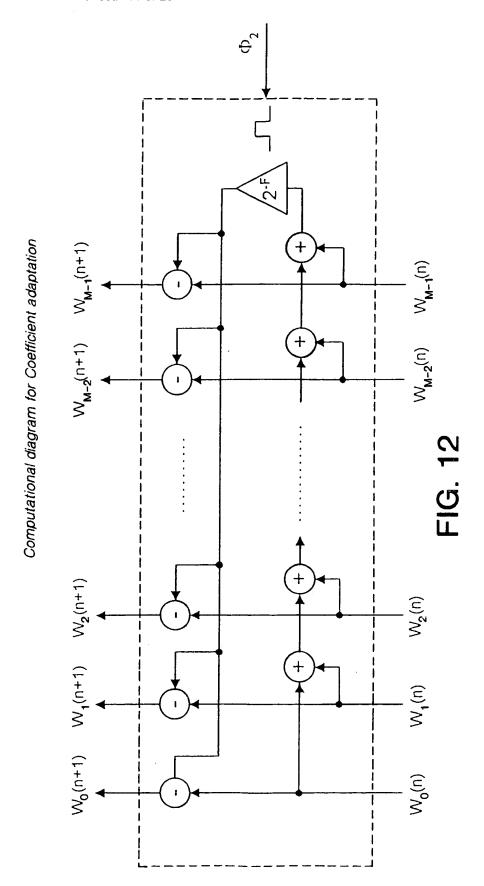


FIG. 10

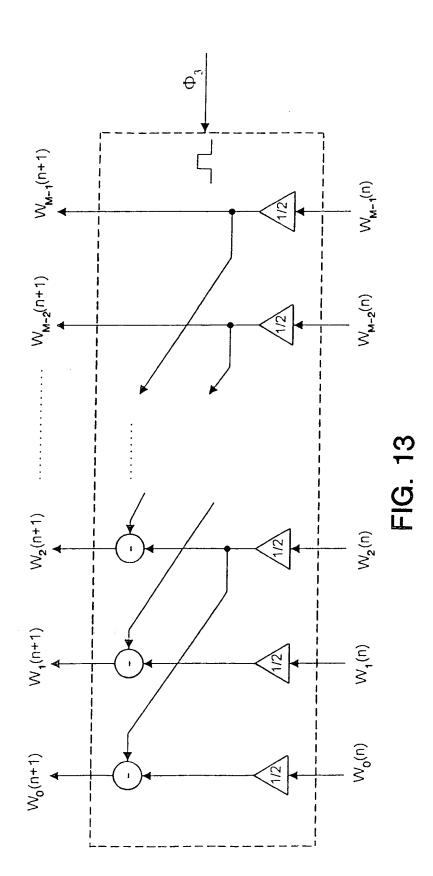
Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163 Docket No.: 37422Pt
Sheet: 10 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163 Docket No.: 37422P006
Sheet: 11 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163 Docket No.: 37422P006
Sheet: 12 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR

HEARING AIDS

1st Named Inventor: Shawn X. Gao

Application No.: 09/409,163

Sheet: 13 of 20

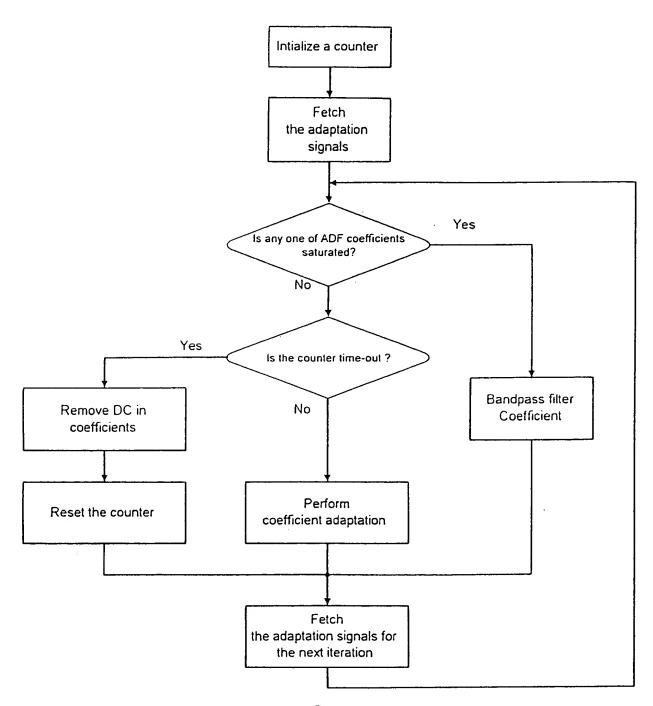


FIG. 14

Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR HEARING AIDS

1st Named Inventor: Shawn X. Gao

Application No.: 09/409,163 Sheet: 14 of 20

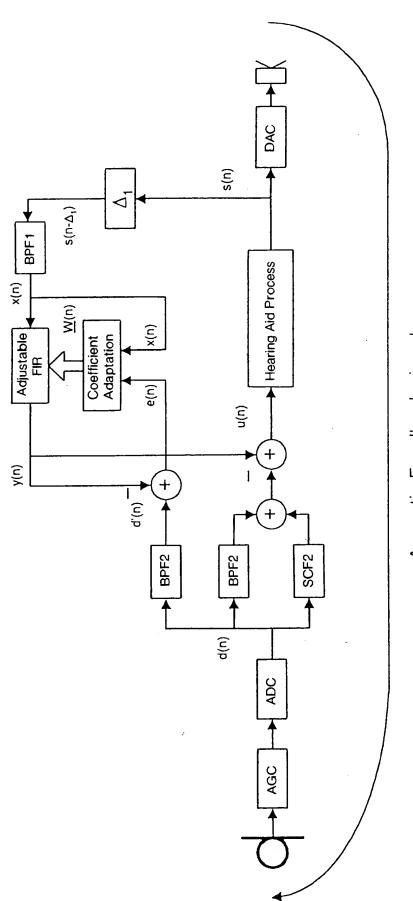
Docket No.: 37422P006

SAT: coefficient saturation indicator from previous sample. Φ_1 : Enable coefficient adaptation Φ_2 : Enable DC Removal. Φ_3 : Enable Bandpassing filtering ADF coefficients.

ф Ф မ် SAT Removal Timer 20

Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR

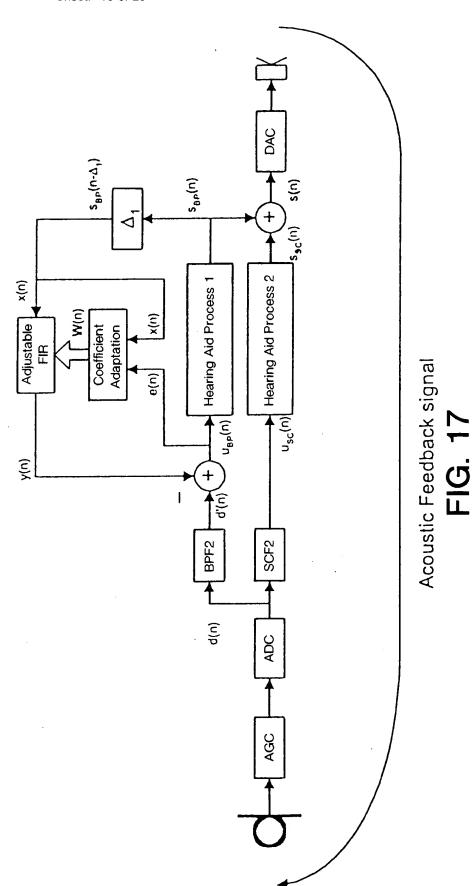
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163
Sheet: 15 of 20



Acoustic Feedback signal

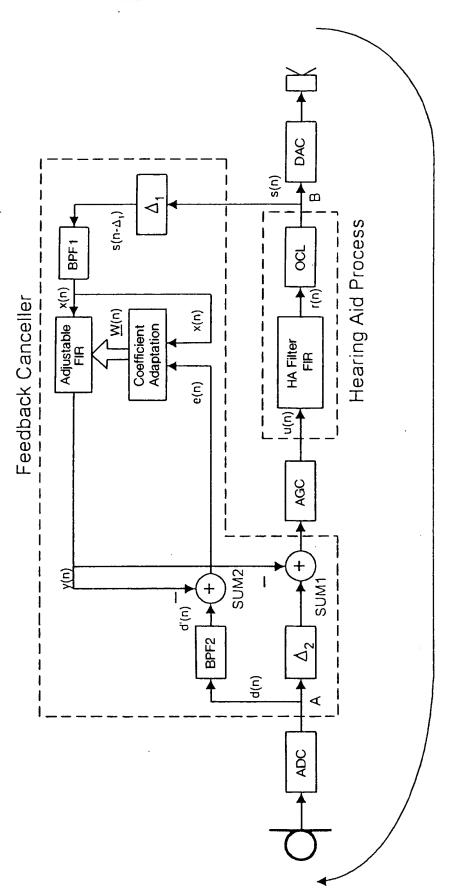
Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR

HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163
Sheet: 16 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800
Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR
HEARING AIDS
1st Named Inventor: Shawn X. Gao
Application No.: 09/409,163 Docket No.: 37422P006

Sheet: 17 of 20



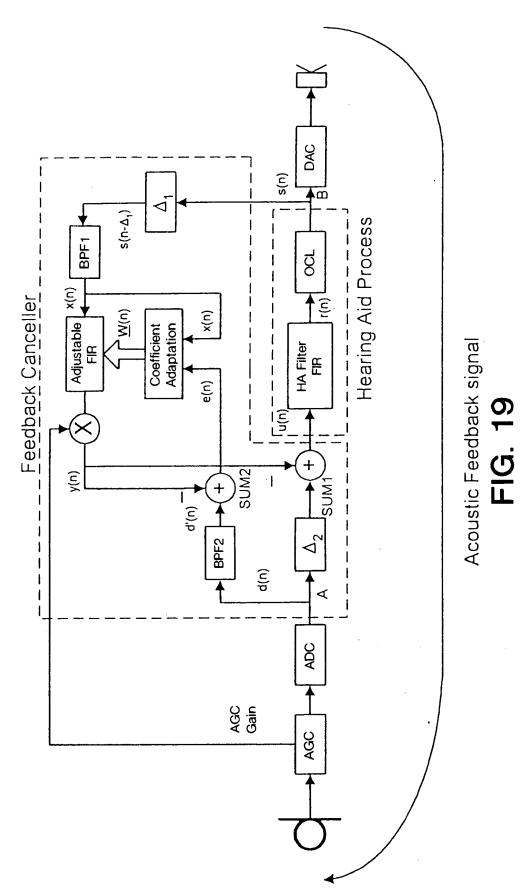
Acoustic Feedback signal

Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 •Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR HEARING AIDS

1st Named Inventor: Shawn X. Gao

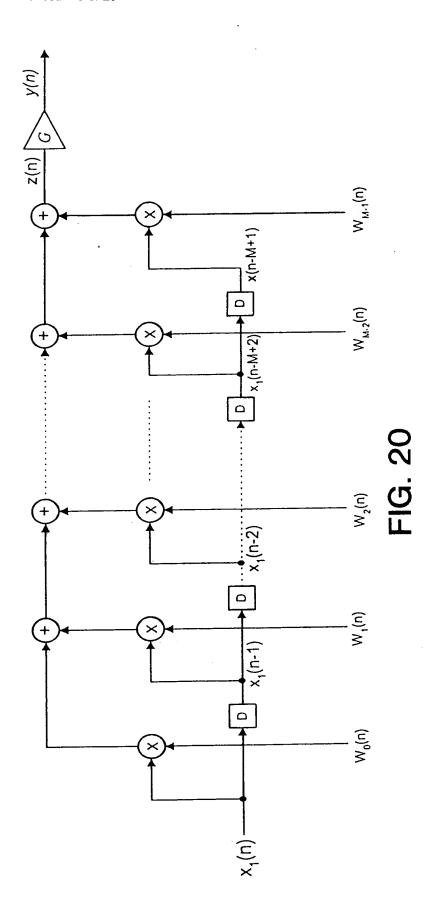
Application No.: 09/409,163

Sheet: 18 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3800 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR HEARING AIDS

1st Named Inventor: Shawn X. Gao Application No.: 09/409,163 Sheet: 19 of 20



Blakely, Sokoloff, Taylor & Zafman LLP (310) 207-3 Title: BAND-LIMITED ADAPTIVE FEEDBACK CANCELLER FOR (310) 207-3800

HEARING AIDS

1st Named Inventor: Shawn X. Gao

Application No.: 09/409,163 Sheet: 20 of 20

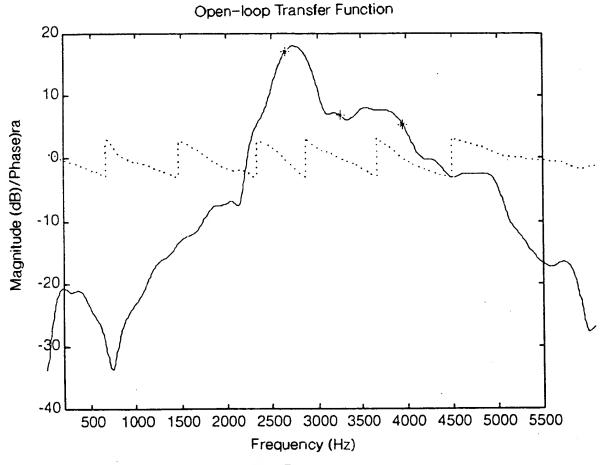


FIG. 21